

ABSTRACT

An electrochemical device having an electrode plate assembly. The electrode plate assembly includes (a) at least one first electrode, (b) at least one second electrode, and (c) a separator interposed between the first electrode and the second electrode. The first electrode includes a first current collector sheet and at least one first electrode mixture layer carried thereon. The second electrode includes a second current collector sheet and at least one second electrode mixture layer carried thereon. At least one of the first current collector sheet and the second current collector sheet has a conductive area and an insulating area.